Listing of the claims:

1. (Previously presented) An apparatus for detecting a position of an object in one or more images captured by an image pickup device mounted on a vehicle, comprising:

(a) a memory configured to store a plurality of images captured by the image pickup device, including a first image of an object taken at a first time and a second image of the object captured at a second time; and

(b) a controller operatively coupled to the memory and configured to determine whether a first pitch of the vehicle at the first time is level and whether a second pitch of the vehicle at the second time is level, and to determine the position of the object in the second image based on the position of the object in the first image if the first pitch is level and the second pitch is non-level.

2. (Previously presented) The apparatus of claim 1, wherein the controller is further configured to compute an image acceleration of the second image; and to determine that the second image was captured when the second pitch of the vehicle was level if the image acceleration of the second image is zero.

3. (Previously presented) The apparatus of claim 2, wherein the controller is further configured to compute a vertical image velocity of the second image, and to determine that the second image was captured when the second pitch of the vehicle was level if the second image has a zero image acceleration and a non-zero vertical image velocity.

4. (Previously presented) The apparatus of claim 1, wherein the memory includes a third image of the object captured at a third time when a third pitch of the vehicle is level, and wherein the controller is further configured to determine the position of the object in the second image based on the position of the object in the first image and the position of the object in the third image.

5. (Previously presented) The apparatus of claim 1, wherein the controller is further configured to compute a size of the object in the second image based on a size of the object in the first image if the second image was captured when the second

pitch of the vehicle was not level, and to compute a distance between the image pickup device and the object in the second image based on the computed sizes of the object in the first and second images.

6. (Previously presented) The apparatus of claim 5, wherein the controller is further configured to compute a vision axis of the image pickup device based on the computed distance if the second image was captured when the second pitch of the vehicle was not level, and to compute the position of the object in the second image based on the computed vision axis.

7. (Previously presented) A vehicle, comprising:

(a) an image pickup device mounted on the vehicle to capture a plurality of images of at least one object;

(b) a memory on which is stored the plurality of images captured by the image pickup device, including a first image of the at least one object taken at a first time when a first pitch of the vehicle is level and a second image of the at least one object captured at a second time;

(c) a controller operatively coupled to the memory and configured to determine whether a second pitch of the vehicle at the second time is level, and to determine a position of the at least one object in the second image based on the position of the at least one object in the first image if the the second pitch is non-level.

8. (Previously presented) The vehicle of claim 7, wherein the controller is further configured to compute an image acceleration of the second image; and to determine that the second image was captured when the second pitch of the vehicle was level if the image acceleration of the second image is zero.

9. (Previously presented) The vehicle of claim 8, wherein the controller is further configured to compute a vertical image velocity of the second image, and to determine that the second image was captured when the second pitch of the vehicle was level if the second image has a zero image acceleration and a non-zero vertical image velocity.

10. (Previously presented) The vehicle of claim 7, wherein the memory includes a third image of the at least one object captured at a third time when a third pitch of the vehicle is level, and wherein the controller is further configured to determine the position of the at least one object in the second image based on the position of the at least one object in the first image and the position of the at least one object in the third image.

11. (Previously presented) The vehicle of claim 7, wherein the controller is further configured to compute a size of the at least one object in the second image based on a size of the at least one object in the first image if the second image was captured when the second pitch of the vehicle is not level, and to compute a distance between the image pickup device and the at least one object in the second image based on the computed sizes of the at least one object in the first and second images.

12. (Previously presented) The vehicle of claim 11, wherein the controller is further configured to compute a vision axis of the image pickup device based on the computed distance if the second image was captured when the vehicle was not balanced, and to compute the position of the at least one object in the second image based on the computed vision axis.

13. (Previously presented) An apparatus for detecting a position of an object in one or more images captured by an image pickup in a vehicle, comprising:

image judgment means for determining whether a first image of the object captured by the image pickup was captured when a first pitch of the vehicle was level; and

object position computing means for determining the position of the object in the first image if the first image was captured when the first pitch of the vehicle was not level, which determination is based on a second image of the same object that was captured when a second pitch of the vehicle was level.

14. (Previously presented) A method for detecting a position of an object in an image captured by an image pickup in a vehicle, comprising:

determining whether a first image of the object captured by the image pickup was captured when a first pitch of the vehicle was level; and

determining the position of the object in the first image if the first image was

captured when the first pitch of the vehicle was not level, which determination is based on a second image of the same object that was captured when a second pitch of the vehicle was level.

15. (Previously presented) The method of claim 14, further comprising determining a first image acceleration of the first image; wherein the first pitch of the vehicle is determined to be in level if the first image acceleration is zero.

16. (Previously presented) The method of claim 15, further comprising determining a vertical image velocity of the first image; wherein the first pitch of the vehicle is determined to be in level if first image has a zero image acceleration and a non-zero vertical image velocity.

17. (Previously presented) The method of claim 14, further comprising providing a third image of the of the object captured when a third pitch of the vehicle was level, and wherein the position of the object in the first image is determined based on the positions of the object in the second image and in the third image.

18. (Previously presented) The method of claim 14, further comprising computing a size of the object in the first image based on the size of the object in the second image if the first image was captured when the first pitch of the vehicle was not level, and computing the distance between the image pickup device and the object based on the computed sizes of the object in the first and second images.

19. (Previously presented) The method of claim 18, further comprising computing a vision axis of the image pickup device based on the computed distance of the object, if the first image was captured when the first pitch of the vehicle was not level, and computing the position of the object in the first image based on the computed vision axis.